IN THE CLAIMS

For the convenience of the Examiner, all pending claims of the present Application are shown below whether or not an amendment has been made.

1. (Currently Amended) An apparatus comprising a switch which includes:

a base section;

an electrically conductive part supported on said base section; ~~and~~

a membrane which has first and second ends respectively supported at spaced first and second locations on said base section, which has an electrically conductive portion disposed between said first and second ends, which has spaced first and second sections that are disposed between said first and second ends on opposite sides of said conductive portion and that each serve as resilient structure capable of yieldably varying in size in a direction lengthwise of said membrane, and which is capable of resiliently flexing so that said membrane can move from a first position where said membrane is substantially unflexed and said conductive portion is spaced from said conductive part to a second position where said membrane is flexed and said conductive portion is adjacent said conductive part, said membrane having outer portions that each extend a selected distance outwardly from a respective one of said first and second sections to a respective one of said first and second locations in a direction approximately normal to a direction of movement of said conductive portion, said outer portions each being free of physical coupling to said base section except at a respective one of said first and second ~~locations.~~ locations;

wherein each of said first and second sections includes a membrane section which extends transversely of said membrane and has an approximately U-shaped profile; and

wherein the first and second sections expand as said membrane is moved from said first position to said second position.

2. (Original) An apparatus according to Claim 1, including a dielectric layer disposed over said conductive part, said membrane engaging a side of said dielectric layer opposite from said conductive part when said membrane is in said second position.

3. (Canceled).

4. (Amended) An apparatus according to Claim 1, wherein each of said first and second sections includes a membrane section which extends transversely of said membrane and has an approximately U-shaped profile ; and

wherein the first and second sections expand as said membrane is moved from said first position to said second position.

5. (Canceled).

6. (Original) An apparatus according to Claim 4, wherein when said membrane is in said first position, said U-shaped profile of each said membrane section includes spaced first and second portions which are approximately straight and extend approximately parallel to each other, and includes a third portion which is approximately straight and extends between ends of said first and second portions approximately perpendicular thereto.

7. (Original) An apparatus according to Claim 6, wherein said first and second portions of each said membrane section tilt with respect to said third portion thereof in response to exertion on said membrane of one of a lengthwise contraction force and a lengthwise expansion force.

8. (Original) An apparatus according to Claim 6, wherein said first and second portions of each said membrane section extend from opposite ends of said third portion thereof in a direction toward said base section.

9. (Original) An apparatus according to Claim 6, wherein said first and second portions of each said membrane section extend from opposite ends of said third portion thereof in a direction away from said base section.

10. (Previously Presented) An apparatus comprising a switch which includes:

a base section;

an electrically conductive part supported on said base section;

a membrane which has first and second ends respectively supported at spaced first and second locations on said base section, which has an electrically conductive portion disposed between said first and second ends thereof, which includes first and second sections

disposed on opposite sides of said conductive portion, and which is capable of resiliently flexing so that said membrane can move from a first position where said membrane is substantially unflexed and said conductive portion is spaced from said conductive part to a second position where said membrane is flexed and said conductive portion is adjacent said conductive part;

wherein as said membrane moves from said first position to said second position, said first and second sections engage said base section before said conductive portion reaches said position adjacent said conductive part, and then a central portion of said membrane between said first and second sections flexes to effect movement of said conductive portion to said position adjacent said conductive part.

11. (Previously Presented) An apparatus according to Claim 1, wherein said membrane has a central portion extending between said first and second sections, said central portion and said outer portions being approximately co-planar when said membrane is in said first position.

12. (Canceled).

13. (Canceled).

14. (Currently Amended) An apparatus comprising a switch which includes: ~~An apparatus according to Claim 1,~~

a base section;

an electrically conductive part supported on said base section;

a membrane which has first and second ends respectively supported at spaced first and second locations on said base section, which has an electrically conductive portion disposed between said first and second ends, which has spaced first and second sections that are disposed between said first and second ends on opposite sides of said conductive portion and that each serve as resilient structure capable of yieldably varying in size in a direction lengthwise of said membrane, and which is capable of resiliently flexing so that said membrane can move from a first position where said membrane is substantially unflexed and said conductive portion is spaced from said conductive part to a second position where said membrane is flexed and said conductive portion is adjacent said conductive part, said

membrane having outer portions that each extend a selected distance outwardly from a respective one of said first and second sections to a respective one of said first and second locations in a direction approximately normal to a direction of movement of said conductive portion, said outer portions each being free of physical coupling to said base section except at a respective one of said first and second locations; and

a circuit operable for applying between said electrically conductive part and said electrically conductive portion a first voltage which effects movement of said membrane from said first position to said second position, and for thereafter applying between said electrically conductive part and said electrically conductive portion a second voltage which is less than said first voltage and which is sufficient to maintain said membrane in said second position thereof.

15. (Currently Amended) A method of switching through use of a switch which includes a base section, an electrically conductive part supported on said base section, and a membrane having first and second ends respectively supported at spaced first and second locations on said base section, and having an electrically conductive portion disposed between said first and second ends thereof, comprising the steps of:

configuring said membrane to include spaced first and second sections that are disposed between said first and second ends of said membrane on opposite sides of said conductive portion and that each serve as resilient structure which is capable of yieldably varying in size in a direction lengthwise of said membrane;

configuring said membrane to include outer portions that each extend a selected distance outwardly from a respective one of said first and second sections to a respective one of said first and second locations and that are each free of physical coupling to said base section except at a respective one of said first and second locations; ~~and~~

responding to an applied voltage between said conductive part and said conductive portion by resiliently flexing said membrane so that said membrane moves from a first position where said membrane is unflexed and said conductive portion is spaced from said conductive part to a second position where said membrane is flexed and said conductive portion is adjacent said conductive ~~part,~~ part; ~~said outer portions each extending in a direction which is approximately normal to a direction of movement of said conductive portion.~~

configuring said membrane so that said first and second sections each include a membrane section which extends transversely of said membrane and which has approximately a U-shaped profile; and

effecting expansion of each of said first and second sections as said membrane is moved from said first position to said second position.

16. (Canceled)

17. (Canceled).

18. (Previously Presented) A method according to Claim 15, including the step of configuring each said membrane section so that, when said membrane is in said first position, said U-shaped profile thereof includes spaced first and second portions which are approximately straight and extend approximately parallel to each other, and includes a third portion which is approximately straight and extends between ends of said first and second portions approximately perpendicular thereto.

19. (Original) A method according to Claim 18, including the step of causing each of said first and second portions of each said membrane section to tilt with respect to said third portion thereof in response to the application to said membrane of one of a lengthwise expansion force and a lengthwise contraction force.

20. (Previously Presented) A method of switching through use of a switch which includes a base section, an electrically conductive part supported on said base section, and a membrane having first and second ends respectively supported at spaced first and second locations on said base section, and having an electrically conductive portion disposed between said first and second ends, comprising the steps of:

configuring said membrane to have first and second sections which are disposed between said ends thereof on opposite sides of said electrically conductive portion; and

responding to an applied voltage between said conductive part and said conductive portion by resiliently flexing said membrane so that said membrane moves from a first position where said membrane is substantially unflexed and said conductive portion is spaced

from said conductive part to a second position where said membrane is flexed and said conductive portion is adjacent said conductive part, including the steps of:

causing said first and second sections to engage said base section during movement of said membrane toward said second position before said membrane reaches said second position; and

thereafter flexing a central portion of said membrane disposed between said first and second sections thereof to effect movement of said conductive portion to said position adjacent said conductive part.

21. (Currently Amended) A method of switching through use of a switch which includes a base section, an electrically conductive part supported on said base section, and a membrane having first and second ends respectively supported at spaced first and second locations on said base section, and having an electrically conductive portion disposed between said first and second ends thereof, comprising the steps of:

configuring said membrane to include spaced first and second sections that are disposed between said first and second ends of said membrane on opposite sides of said conductive portion and that each serve as resilient structure which is capable of yieldably varying in size in a direction lengthwise of said membrane;

configuring said membrane to include outer portions that each extend a selected distance outwardly from a respective one of said first and second sections to a respective one of said first and second locations and that are each free of physical coupling to said base section except at a respective one of said first and second locations;

responding to an applied voltage between said conductive part and said conductive portion by resiliently flexing said membrane so that said membrane moves from a first position where said membrane is unflexed and said conductive portion is spaced from said conductive part to a second position where said membrane is flexed and said conductive portion is adjacent, said conductive part said outer portions each extending in a direction which is approximately normal to a direction of movement of said conductive portion; and

~~A method according to Claim 15, including the step of~~ effecting application of said applied voltage between said electrically conductive part and said electrically conductive portion by applying there between a first voltage which effects movement of said membrane from said first position to said second position, and thereafter applying there between a second voltage

which is lower than said first voltage and which is sufficient to maintain said membrane in said second position thereof.

22. (Canceled).

23. (Canceled).

24. (Canceled).

25. (Previously Presented) An apparatus according to Claim 10, wherein said first and second sections of said membrane are flexible and capable of yieldably varying in size in a direction lengthwise of said membrane in a manner so as to vary an effective length of said membrane.

26. (Previously Presented) An apparatus according to Claim 25, wherein said first and second sections each include a membrane section which extends transversely of said membrane and has an approximately U-shaped profile.

27. (Previously Presented) An apparatus according to Claim 26, wherein when said membrane is in said first position, said U-shaped profile of each said membrane section includes spaced first and second portions which are approximately straight and extend approximately parallel to each other, and includes a third portion which is approximately straight and extends between ends of said first and second portions approximately perpendicular thereto.

28. (Previously Presented) An apparatus according to Claim 27, wherein in each said membrane section, said first and second portions thereof tilt with respect to said third portion thereof in response to exertion on said membrane of one of a lengthwise contraction force and a lengthwise expansion force.

29. (Previously Presented) An apparatus according to Claim 27, wherein in each said membrane section, said first and second portions thereof extend from opposite ends of said third portion thereof in a direction away from said base section.

30. (Previously Presented) An apparatus according to Claim 10, wherein said membrane has outer portions which each extend outwardly from a respective one of said first and second sections on a side thereof opposite from said central portion, said central portion and said outer portions being approximately co-planar when said membrane is in said first position.

31. (Previously Presented) An apparatus according to Claim 10, including a circuit operable for applying between said electrically conductive part and said electrically conductive portion a first voltage which effects movement of said membrane from said first position to said second position, and for thereafter applying between said electrically conductive part and said electrically conductive portion a second voltage which is less than said first voltage and which is sufficient to maintain said membrane in said second position thereof.

32. (Previously Presented) A method according to Claim 20, including the steps of:

configuring said first and second sections to be flexible and capable of yieldably varying in size in a direction lengthwise of said membrane; and

effecting expansion of said first and second sections as said membrane is moved from said first position to said second position.

33. (Previously Presented) A method according to Claim 32, including the step of configuring each of said first and second sections to include a membrane section which extends transversely of said membrane and which has approximately a U-shaped profile.

34. (Previously Presented) A method according to Claim 33, including the step of configuring each said membrane section so that, when said membrane is in said first position, said U-shaped profile thereof includes spaced first and second portions which are approximately straight and extend approximately parallel to each other, and includes a third portion which is approximately straight and extends between ends of said first and second portions approximately perpendicular thereto.

35. (Previously Presented) A method according to Claim 34, including for each said membrane section the step of causing each of said first and second portions thereof to tilt with respect to said third portion thereof in response to the application to said membrane of one of a lengthwise expansion force and a lengthwise contraction force.

36. (Previously Presented) A method according to Claim 20, including the step of effecting application of said applied voltage between said electrically conductive part and said electrically conductive portion by applying there between a first voltage which effects movement of said membrane from said first position to said second position, and thereafter applying there between a second voltage which is lower than said first voltage and which is sufficient to maintain said membrane in said second position thereof.

37. (Original) An apparatus according to Claim 1, wherein as said membrane moves from said first position to said second position, said first and second sections engage said base section before said conductive portion reaches said position adjacent said conductive part, and then a central portion of said membrane between said first and second sections flexes to effect movement of said conductive portion to said position adjacent said conductive part.

38. (Original) A method according to Claim 15, including the steps of:

causing said first and second sections to engage said base section during movement of said membrane toward said second position before said membrane reaches said second position; and

thereafter flexing a central portion of said membrane disposed between said first and second sections thereof to effect movement of said conductive portion to said position adjacent said conductive part.

39. (New) A method of switching through use of a switch which includes a base section, an electrically conductive part supported on said base section, and a membrane having first and second ends respectively supported at spaced first and second locations on said base section, and having an electrically conductive portion disposed between said first and second ends thereof, comprising the steps of:

configuring said membrane to include spaced first and second sections that are disposed between said first and second ends of said membrane on opposite sides of said conductive portion and that each serve as resilient structure which is capable of yieldably varying in size in a direction lengthwise of said membrane;

configuring said membrane to include outer portions that each extend a selected distance outwardly from a respective one of said first and second sections to a respective one of said first and second locations and that are each free of physical coupling to said base section except at a respective one of said first and second locations;

responding to an applied voltage between said conductive part and said conductive portion by resiliently flexing said membrane so that said membrane moves from a first position where said membrane is unflexed and said conductive portion is spaced from said conductive part to a second position where said membrane is flexed and said conductive portion is adjacent said conductive part;

configuring said membrane so that said first and second sections each include a membrane section which extends transversely of said membrane and which has approximately a U-shaped;

causing each of said first and second portions of each said membrane section to tilt with respect to said third portion thereof in response to the application to said membrane of one of a lengthwise expansion force and a lengthwise contraction force; and

effecting one of expansion and contraction of each of said first and second sections in response to application to said membrane of one of a lengthwise expansion force and a lengthwise contraction force.